

Appl. No. 09/100,624

REMARKS

Claim 1 has been amended to specify that an air permeability of the reinforcing structure of the first lamina is greater than an air permeability of the second lamina. The amendment has been done by submitting a clean amended claim with the same number, and is believed to be made in accordance with the new Rule Sec. 1.121(c). A marked up version is attached hereto.

Claim rejections - 35 USC §103

Claims 1-3, 5-8 and 22-25 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Trokhan (5,556,509) in view of Deschamps (FR 394,134); and Claims 9, 11-18 and 20-21 are rejected under 35 U.S.C. §103(a) as being unpatentable over Trokhan (5,556,509) in view of Trokhan (5,624,790).

The Examiner states that one skilled in the art would recognize that woven and non-woven fabrics are equivalent to each other for purposes of reinforcing a resin layer in a papermaking belt and that the prospect of increasing the water drainage through the papermaking belt would motivate one skilled in the art to substitute the woven fabric from Deschamps (FR 394,194) for the non-woven layer 240, of the Trokhan (5,556,509) patent.

Respectfully, Applicant disagrees. Trokhan ('509) provides for dewatering of the paper web through the use of the felt layer having a layered construction. The felt layer promotes transport of water from the web away from the first felt surface (i. e., a surface adjacent to the web) and toward the second felt surface (i. e., a surface opposite to the first surface). The layers preferably have a relatively high-density and relatively small pore size adjacent to the first surface, as compared to the density and pore size of the layer adjacent to the second surface. (Trokhan '509, at 7:46-57). This drop in density provides that water entering the first surface is carried away from the first surface. Summarizing, Trokhan '509 teaches that the density DECREASES in the direction from the web away, for removal of water from the web.

Based on Trokhan '509, one skilled in the art would not be motivated to INCREASE the density by reversing the relative densities of the layers. Thus, Trokhan '509 provides no motivation to replace a relatively high density felt layer with a relatively low density woven layer, nor is there anything to create an expectation of success from such a substitution.

Furthermore, to more specifically define the present invention, Claim 1 has been amended to specify that an air permeability of the reinforcing structure of the first lamina is

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greater than an air permeability of the second lamina. (By increasing density of the layer(s) in direction away from the web, one decreases the air permeability thereof.) Support for the amendment can be found at 9:3-9 and 14:3-11. No new matter has been added, and the full range of equivalents has been retained.

Moreover, there is no motivation to combine Trokhan '790 and Trokhan '509. The belt of the Trokhan '790 relies on vacuum dewatering, wherein air flows through the paper web and the belt removing water. Adequate air flow through the belt is of great concern (Trokhan '790, at 12:60-65). Therefore, the "highly permeable" reinforcing structure of Trokhan '790 has an air permeability in the range of from about 800 cfm to about 1400 cfm. (Trokhan '790, at 16:18-29.) On the other hand, an air permeability of the dewatering felt layer in the Trokhan '509 is significantly lower: between about 5-50 cfm (Trokhan '509, at 7:64). Therefore, given the requirement of "highly permeable" reinforcing structure of Trokhan '790, one skilled in the art would not be motivated to add a felt layer of Trokhan '509 to the belt of Trokhan '790 -- since it would impermissibly reduce the air flow characteristics of the belt taught by Trokhan '790.

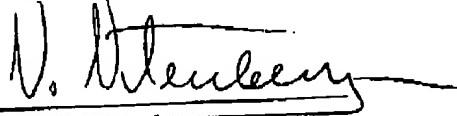
Summarizing, one skilled in the art would not be motivated to combine the cited prior art references. To the contrary, the cited art teaches away from the claimed invention. It is only in hindsight based on the Applicant's disclosure, that such a combination could be suggested.

Attached hereto is a marked-up version of the changes made to the claims by the current amendment. The attached page is captioned "Version with markings to show changes made."

For the reasons stated above, and in view of the amendment, it is respectfully requested that the rejection under 35 U.S.C. §103(a) be withdrawn and the case allowed to issue.

Respectfully submitted,

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February 28, 2001
Cincinnati, Ohio

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

Claim 1 has been amended as follows:

1. (Three Times Amended) A papermaking belt comprising:
two laminae, a first lamina and a second lamina, said first and second laminae being joined in face-to-face relationship to form a unitary laminate;
said laminate having a first surface and a second surface opposed thereto,
said first surface being a paper web contacting surface and said second surface being a machine contacting surface;
said first lamina comprising a woven fabric reinforcing structure and a patterned framework;
said patterned framework facing outwardly from said reinforcing structure whereby said patterned framework forms said first surface of said laminate;
said second lamina comprising a secondary base and batting joined thereto;
wherein said batting forms said second surface of said laminate,
wherein an air permeability of the reinforcing structure of the first lamina is greater than an air permeability of the second lamina.